

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

East Tennessee Natural Gas, LLC
Glade Spring, Washington County, Virginia
Permit No. SWRO10979

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, East Tennessee Natural Gas, LLC has applied for renewal of the Title V Operating Permit for its natural gas compressor facility in Glade Spring, Virginia. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____

Date: March 30, 2006

Air Permit Manager:_____

Date: March 30, 2006

Deputy Regional Director:_____

Date: March 30, 2006

FACILITY INFORMATION

Permittee

East Tennessee Natural Gas, LLC
P. O. Box 1642
Houston, Texas 77251-1642

Facility

East Tennessee Natural Gas, LLC
10494 Forest Hills Drive
Route 751
Glade Spring, Virginia 24340

County-Plant ID No. 51-191-00128

SOURCE DESCRIPTION

SIC Code: 4922 – Natural gas compression for transportation and distribution.

Station 3311 receives natural gas from upstream production facilities, measures, and compresses the gas for transportation. Natural gas enters the station to a set of scrubbers where gas impurities (i.e. water, oil, etc.) are separated from the natural gas. The gas then goes through the gas compressor engines and then into the transmission pipeline for distribution to customers along the pipeline system. Station 3311 utilizes two Ingersoll Rand KVG-36 reciprocating engines (unit reference numbers S001 and S002) rated at 660 hp (7.48 MMBtu/hr) each, used for natural gas compression for transportation and distribution to customers along the pipeline system.

Emissions of nitrogen oxides (NO_x) and carbon monoxide (CO) result from the combustion of natural gas in the reciprocating engines. The compression and transportation activities at the facility do not require glycol dehydration. Any entrained pipeline liquids are physically removed by existing equipment (e.g. gas scrubbers), collected and stored on site for subsequent disposition.

Insignificant emission units located at this facility include various boilers, an emergency generator and liquid storage tanks.

The Ingersoll-Rand engines have the potential to emit 178.75 T/yr of NO_x and 105.3 T/yr CO. Therefore, East Tennessee Natural Gas Company is required to have a Title V operating permit as required by 9 VAC 5 Chapter 80 Article 1. The compressor engines HAP emissions are estimated to be 1.6 T/yr, VOC emissions at 1.5 T/yr, and PM₁₀ emissions at 1.2 T/yr.

The compressor engines are not subject to an emission limitation or standard for the applicable regulated air pollutant and the units do not have an add-on control device to achieve compliance with any such emission limitation or standard; therefore, Compliance Assurance Monitoring

(CAM) does not apply.

The facility is an existing source and a Title V major source of NO_x and CO. The facility is not major for HAPs emissions, and is not subject to any MACT regulations. The facility is located in an attainment area for all pollutants, and is a Prevention of Significant Deterioration (PSD) minor source. The facility is currently permitted under a Title V operating permit with an expiration date of April 2, 2006. A timely and complete renewal application was submitted on September 29, 2005.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on June 4, 2004. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Compressor Engines							
S001	S0011	Ingersoll-Rand, model KVG36, Reciprocating Engine	660 hp/7.48 MMBtu/hr	None	-----	-----	April 2, 2001 (as amended September 23, 2005)
S002	S0021	Ingersoll-Rand, model KVG36, Reciprocating Engine	660 hp/7.48 MMBtu/hr	None	-----	-----	April 2, 2001 (as amended September 23, 2005)

EMISSIONS INVENTORY

Actual emission data is from the 2004 annual emission update. A copy of the annual emission update is attached. Emissions are summarized in the following tables:

2004 Actual Emissions

	2004 Criteria Pollutant Emission in Tons/Year				
Emission Unit	VOC	CO	SO ₂	PM ₁₀	NO _x
S001 and S002	2.08	55.77	0.01	0.21	99.44
Total	2.08	55.77	0.01	0.21	99.44

2004 Facility Hazardous Air Pollutant Emissions

Pollutant	2004 Hazardous Air Pollutant Emissions
Total HAP's	0.45 tons/yr

EMISSION UNIT APPLICABLE REQUIREMENTS – Ingersoll-Rand Compressor Engines, S001 and S002

Limitations

The facility was constructed prior to 1972 and there have not been any subsequent installations or modifications to the facility; therefore, the facility is considered an existing source and does not currently have a NSR permit. The following limitation is an existing source limit obtained from 9 VAC 5 Chapter 40.

Visible emissions from each compressor engine exhaust stack, S0011 and S0021, shall not exceed 20 percent opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Monitoring

There is no specific monitoring for the visible emission requirement. Adequate periodic monitoring is attained since the engines shall burn natural gas and the permit requires good operation practices, proper maintenance and records of fuel combustion. No visible emissions have been observed during inspections.

Recordkeeping

The permittee shall maintain the following records:

Annual fuel consumption for each compressor engine calculated monthly as the sum of each consecutive 12-month period.

Monthly records for each compressor engine, to include the total fuel consumption in cubic feet.

Annual NO_x and CO emissions from each compressor engine calculated monthly as the sum of each consecutive 12-month period.

Records of malfunctions of the equipment, which would cause a violation of any part of this permit.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

No specific reporting requirements for this operation have been included in the permit.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 3-2001”.

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Code section has specific requirements only enforceable by the State:

- 9 VAC 5-40-340, Standard for Odor; and
- 9 VAC 5-40-350, Standard for Toxic Pollutants.

FUTURE APPLICABLE REQUIREMENTS

The facility is not a major source of HAPs and does not have a glycol dehydration unit, and is therefore not subject to current Maximum Achievable Control Technology (MACT) standards. No new regulations that would impact this facility are anticipated within the term of the Title V permit.

INAPPLICABLE REQUIREMENTS

The facility did not list any regulations that do not apply to the operation.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be

included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
S003	Boilers/Heaters	9 VAC 5-80-720 B and C.2.a	NOx, CO, VOC, SO2, PM-10	1.259 Million Btu/hr
S004	Ford LSG-875 Emergency Generator	9 VAC 5-80-720 B and C.4.d	NOx, CO, VOC, SO2, PM-10	144 bhp
T001	Storage Tank: Pipeline Liquids	9 VAC 5-80-720 B.2	VOC	1,000 gal
T002	Storage Tank: Oil	9 VAC 5-80-720 B.2	VOC	6,000 gal
T003	Storage Tank: Oil	9 VAC 5-80-720 B and C.3	VOC	950 gal
T004	Storage Tank: Oil	9 VAC 5-80-720 B and C.3	VOC	235 gal
T005	Storage Tank: Oil	9 VAC 5-80-720 B and C.3	VOC	235 gal
T006	Storage Tank:	9 VAC 5-80-	VOC	125 gal

	Oil	720 B and C.3		
T007	Storage Tank: Oil	9 VAC 5-80- 720 B.2	VOC	720 gal
T008	Storage Tank: Coolant	9 VAC 5-80- 720 B and C.3	VOC	1,780 gal
T009	Storage Tank: Coolant	9 VAC 5-80- 720 B and C.3	VOC	280 gal
T010	Storage Tank: Coolant	9 VAC 5-80- 720 B and C.3	VOC	280 gal
L001	Truck Loading: Pipeline Liquids	9 VAC 5-80- 720 B	VOC	1,000 gal/hr
L002	Truck Loading: Oil	9 VAC 5-80- 720 B	VOC	8,265 gal/hr
L003	Truck Loading: Coolant	9 VAC 5-80- 720 B	VOC	2,340 gal/hr
PC01	Piping Components: Natural Gas	9 VAC 5-80- 720 B	VOC	N/A
PC02	Piping Components: Pipeline Liquids	9 VAC 5-80- 720 B	VOC	N/A
PC03	Piping Components: Oil	9 VAC 5-80- 720 B	VOC	N/A
PC04	Piping Components: Coolant	9 VAC 5-80- 720 B	VOC	N/A
GR01	Gas Releases: Miscellaneous	9 VAC 5-80- 720 B	VOC	N/A
PW01	Parts Cleaner: Remote Reservoir	9 VAC 5-80- 720 B	VOC	N/A

¹The citation criteria for insignificant activities are as follows:

- 9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
- 9 VAC 5-80-720 B - Insignificant due to emission levels
- 9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in the Bristol Herald Courier, Bristol, Virginia on January 31, 2006. EPA was sent a copy of the draft/proposed permit and notified of the public notice by electronic mail on January 26, 2006. The affected states, including Kentucky, North Carolina, Tennessee and West Virginia, were each sent a copy of the public notice by regular mail on January 26, 2006. All persons on the Title V mailing list were sent a copy of the public notice by e-mail, fax or letter no later than January 31, 2006.

Public comments were accepted from January 31, 2006, through March 1, 2006. No comments were received from the EPA, the affected states or the public regarding the draft/proposed permit.

